Amendments to the Claims:

1. A digital communication receiver ~~(300; 400)~~ adapted to communicate with a digital communication transmitter across a communication channel, the digital communication receiver comprising:

a channel estimator ~~(330; 430),~~ adapted to provide a channel estimate ~~(H0)~~ of the communication channel based on a received signal ~~(yt),~~;

an equalizer ~~(340; 440),~~ adapted to estimate a sequence of transmitted symbols ~~(ut)~~ and provide a sequence of decided symbols ~~(ût)~~ based on the received signal and the channel estimate~~;~~ ~~and~~;

a channel tracker ~~(350; 450),~~ adapted to produce an updated channel estimate ~~(Ht)~~ based on the received signal ~~(yt)~~ and the decided symbols ~~(ût),~~ and ~~adapted~~ to supply the updated channel estimate to the equalizer~~, characterized by~~;

a controller ~~(370; 470), which is~~ operatively coupled to the equalizer ~~(340; 440)~~ and the channel tracker~~(350; 450),~~;

wherein <u>the</u> ~~said~~ controller is adapted to receive channel quality indicative data ~~(Metric; Hstart; Hend)~~ associated with an output from the equalizer, to determine whether ~~said~~ <u>the</u> channel quality indicative data fail to meet a predetermined criterion, and, if so, to supply an enabling control signal ~~("Tracker y/n?")~~ to the channel tracker~~;~~; and

wherein the ~~said~~ enabling control signal is adapted to switch the channel tracker from a disabled state, in which disabled state no updated channel estimate ~~(Ht)~~ is produced, to an enabled state, in which ~~said~~ enabled state the updated channel estimate ~~(Ht)~~ is produced.

2. ~~A~~ The digital communication receiver as in claim 1, wherein ~~said~~ the channel quality indicative data ~~(Metric)~~ are produced by the equalizer ~~(340)~~ and ~~represents~~ represent a degree of correspondence between the received signal ~~(yt)~~ and the decided symbols~~(ût)~~.

3. ~~A~~ The digital communication receiver as in claim 2, wherein ~~said~~ the channel quality indicative data ~~(Metric)~~ are computed by the equalizer ~~(340)~~ as a squared distance between symbols in the received signal ~~(yt)~~ and symbols in a predicted received signal given the decided symbols~~(ût)~~.

4. ~~A~~ The digital communication receiver as in ~~any preceding~~ claim 1, wherein ~~said~~ the predetermined criterion is stored as a threshold value in an electronic memory ~~(390)~~ operatively coupled to the controller~~(370)~~.

5. ~~A~~ The digital communication receiver as in claim 1, further comprising:

a second channel tracker~~(480)~~, which is operatively coupled to the equalizer ~~(440)~~ and the controller~~(470);~~.

wherein the ~~said~~ channel quality indicative data ~~(Hstart, Hend)~~ are produced by the second channel tracker in the form of additional channel estimates ~~(Hstart, Hend)~~ based on the decided symbols ~~(ût)~~ from the equalizer;; and

wherein

the controller ~~(470)~~ is adapted to compare the additional channel estimates with an initial channel estimate ~~(H0)~~ and to produce ~~said~~ the enabling control signal ~~("Tracker y/n?");~~ if the comparison indicates a difference bigger than ~~said~~ the predetermined criterion.

6. ~~A~~ The digital communication receiver as in ~~any preceding claim,~~ claim 1, wherein the receiver is capable of Time Division Multiple Access communication.

7. A digital communication receiver ~~(300; 400)~~ adapted to communicate with a digital communication transmitter across a communication channel, the digital communication receiver comprising:

a channel estimator ~~(330; 430),~~ adapted to provide a channel estimate ~~(H0)~~ of the communication channel based on a received signal~~(yt),~~;

an equalizer ~~(340; 440),~~ adapted to estimate a sequence of transmitted symbols ~~(ut)~~ and provide a sequence of decided symbols ~~(ût)~~ based on the received signal and the channel estimate;; ~~and~~

a channel tracker~~(350; 450)~~, adapted to produce an updated channel estimate ~~(Ht)~~ based on the received signal ~~(yt)~~ and the decided symbols~~(ût)~~, and adapted to supply the updated channel estimate to the equalizer~~; characterized by~~;

a controller ~~(370; 470), which is~~ operatively coupled to the channel tracker~~(350;~~ ~~450);~~ wherein the ~~said~~ controller is adapted to compare ~~said~~ the updated channel estimate ~~(Ht)~~ with an initial channel estimate ~~(H0)~~ and to supply a disabling control signal ~~("Tracker y/n?")~~ to the channel tracker, if the comparison indicates a difference smaller than a predetermined criterion;; and

wherein the ~~said~~ disabling control signal is adapted to switch the channel tracker from an enabled state, in which ~~said~~ enabled state the updated channel estimate ~~(Ht)~~ is produced, to a disabled state, in which disabled state no updated channel estimate ~~(Ht)~~ is produced.

8. ~~A~~ The digital communication receiver as in claim 7, the receiver being capable of Time Division Multiple Access (TDMA) communication, wherein ~~said~~ the updated channel estimate relates to the beginning and/or the end of a TDMA burst.

9. ~~A~~ The wireless communication device~~, comprising~~ of claim 7, wherein the device comprises a digital communication receiver ~~as in any preceding claim~~.

10. ~~A~~ The wireless communication device as in claim 9, wherein the device ~~is~~ comprises a radio telephone.

11. ~~A~~ The wireless communication device as in claim 9, wherein the device ~~is~~ comprises a base station in a cellular communication system.

12. A method of operating a digital communication receiver~~(300, 400)~~, wherein a channel estimate ~~(H0)~~ of a communication channel between the receiver and a digital communication transmitter is produced from a received signal ~~(yt)~~, and ~~wherein~~ a sequence of decided symbols ~~(ût)~~ is produced from the received signal and the channel estimate, ~~characterized by the steps of~~ the method comprising:

a) receiving channel quality indicative data~~(Metric, Hstart, Hend), which are~~, the channel quality indicative data being directly or indirectly associated with ~~said~~ the sequence of decided symbols~~(ût)~~;

b) determining whether ~~said~~ the channel quality indicative data fail to meet a predetermined criterion; and

c) conditionally, if the predetermined criterion is not met, switching from a disabled state, in which disabled state no updated channel estimate ~~(Ht)~~ is produced, to an enabled state, in which enabled state an updated channel estimate ~~(Ht)~~ is produced from ~~said~~ the received signal ~~(yt)~~ and ~~said~~ the sequence of decided symbols~~(ût)~~.

13. ~~A~~ The method as in claim 12, further comprising ~~the step of~~:

a') producing ~~said~~ the channel quality indicative data ~~(Metric)~~ as a calculated squared distance between symbols in the received signal ~~(yt)~~ and symbols in a predicted received signal given the decided symbols~~(ût)~~.

14. ~~A~~ The method as in claim 12, further comprising ~~the step of~~:

a") producing ~~said~~ the channel quality indicative data as additional channel estimates ~~(Hstart, Hend)~~ based on the decided symbols~~(ût)~~;; and

wherein the ~~said~~ predetermined criterion is a degree of correspondence between ~~said~~ the additional channel estimates and an initial channel estimate.

15. A method of operating a digital communication receiver~~(300, 400)~~, wherein a channel estimate ~~(H0)~~ of a communication channel between the receiver and a digital communication transmitter is produced from a received signal ~~(yt)~~; and ~~wherein~~ a sequence of decided symbols ~~(ût)~~ is produced from the received signal and the channel estimate, ~~characterized by the steps of~~ the method comprising:

a) receiving an updated channel estimate ~~(Ht)~~ based on the decided symbols~~(ût)~~;

b) comparing ~~said~~ the updated channel estimate ~~(Ht)~~ with an initial channel estimate~~(H0)~~; and

c) conditionally, if the comparison indicates a difference smaller than a predetermined criterion, switching from an enabled state, in which enabled state an updated channel estimate

~~(Ht)~~ is produced from ~~said~~ the received signal ~~(yt)~~ and ~~said~~ the sequence of decided symbols~~(ût)~~, to a disabled state, in which disabled state no updated channel estimate ~~(Ht)~~ is produced.

16. ~~A~~ The method as in claim 15, wherein:

the receiver is capable of Time Division Multiple Access (TDMA) communication; and

~~wherein said~~ the updated channel estimate relates to the beginning and/or the end of a TDMA burst.